What is claimed is:

1   1: A method comprising:

2   evaluating the activity of one or more virtual machines; and

3   reallocating physical resources to the virtual machine(s) based, at least in part, on

4   the evaluated activity.

1   2: The method of claim 1, further including:

2   monitoring the activity of one or more virtual machines.

1   3: The method of claim 2, wherein monitoring the activity of one or more virtual

2   machines includes monitoring an activity selected from a group including:

3   interrupt usage,

4   processor usage,

5   network usage,

6   disk usage, and

7   whether the virtual machine is performing a time-critical task.

1   4: The method of claim 2, wherein monitoring the activity of one or more virtual

2   machines includes:

3   monitoring the activity of the virtual machine substantially in parallel with

4   executing the virtual machine.

1   5: The method of claim 1, wherein reallocating physical resources to the virtual

2   machine(s) based, at least in part, on the evaluated activity includes:

3   either increasing or decreasing the ability of the virtual machine(s) to access to a

4   physical resource.

1   6: The method of claim 5, wherein reallocating physical resources to the virtual

2   machine(s) includes:

3   increasing the ability of the virtual machine(s) to access to a first physical resource; and

4   decreasing the ability of the virtual machine(s) to access to a second physical resource.

1   7: The method of claim 5, wherein reallocating physical resources to the virtual

2   machine(s) includes a reallocation selected from a group including the following:

3   altering the order in which the virtual machine(s) are executed,

4   swapping between virtual machines,

5   assigning core affinity to a virtual machine,

6   assigning a processor affinity to a virtual machine, and

7   altering the time quanta assigned to the virtual machine(s).

1   8: The method of claim 1, wherein reallocating physical resources to the virtual

2   machine(s) is performed by a virtual machine monitor having a resource manager to

3   evaluate the virtual machine(s) activity.

1   9: The method of claim 8, wherein the resource manager is a part of an integrated circuit.

1   10: The method of claim 1, wherein evaluating the activity of one or more virtual

2   machines includes:

3   determining whether the activity of the virtual machine(s) is sufficient to trigger a

4   change in the resource allocation;

5   suggesting a resource allocation; and

6   determining whether the suggested resource allocation negatively impacts the

7   performance of another virtual machine.

1   11: An article comprising:

2   a storage medium having a plurality of machine accessible instructions, wherein when the

3   instructions are executed, the instructions provide for:

4   evaluating the activity of one or more virtual machines; and

5   reallocating physical resources to the virtual machine(s) based, at least in part, on

6   the evaluated activity.

1   12: The article of claim 11, further including instructions providing for:

2   monitoring the activity of one or more virtual machines.

1   13: The article of claim 12, wherein the instructions providing for monitoring the activity

2   of one or more virtual machines includes instructions providing for monitoring an activity

3   selecting from a group including:

4   interrupt usage,

5   processor usage,

6   network usage,

7   disk usage, and

8   whether the virtual machine is performing a time-critical task.

1   14: The article of claim 12, wherein the instructions providing for monitoring the activity

2   of one or more virtual machines includes instructions providing for:

3   monitoring the activity of the virtual machine substantially in parallel with

4   executing the virtual machine.

1   15: The article of claim 11, wherein the instructions providing for reallocating physical

2   resources to the virtual machine(s) based, at least in part, on the evaluated activity

3   includes instructions providing for:

4   either increasing or decreasing the ability of the virtual machine(s) to access to a

5   physical resource.

1   16: The article of claim 15, wherein the instructions providing for reallocating physical

2   resources to the virtual machine(s) includes instructions providing for:

3   increasing the ability of the virtual machine(s) to access to a first physical resource; and

4   decreasing the ability of the virtual machine(s) to access to a second physical resource.

1   17: The article of claim 15, wherein the instructions providing for reallocating physical

2   resources to the virtual machine(s) includes a reallocation selected from a group

3   including the following:

4   altering the order in which the virtual machine(s) are executed,

5   swapping between virtual machines,

6   assigning core affinity to a virtual machine,

7   assigning a processor affinity to a virtual machine, and

8   altering the time quanta assigned to the virtual machine(s).

1   18: The article of claim 11, wherein the instructions providing for reallocating physical

2   resources to the virtual machine(s) are performed by a virtual machine monitor having a

3   resource manager to evaluate the virtual machine(s) activity.

1   19: The article of claim 18, wherein the resource manager is a part of an integrated

2   circuit.

1   20: The article of claim 11, wherein the instructions providing for evaluating the activity

2   of one or more virtual machines includes instructions providing for:

3   determining whether the activity of the virtual machine(s) is sufficient to trigger a

4   change in the resource allocation;

5   suggesting a resource allocation; and

6   determining whether the suggested resource allocation negatively impacts the

7   performance of another virtual machine.

1   21. An apparatus comprising:

2   a plurality of virtual machines, capable of sharing a plurality of physical

3   resources;

4   an activity monitor, capable of monitoring the activity of the virtual machines;

5   a virtual machine manager, capable of managing the virtual machines and

6   reallocating access to the physical resources amongst the virtual machines, based at least

7   in part on the monitored activity.

1   22. The apparatus of claim 21, wherein the virtual machine monitor includes a resource

2   manager that is capable of reallocating access to the physical resources amongst the

3   virtual machines.

1   23. The apparatus of claim 21, wherein the activity monitor is capable of monitoring an

2   activity selected from a group including:

3   interrupt usage,

4   processor usage,

5   network usage,

6   disk usage, and

7   whether the virtual machine is performing a time-critical task.

1   24. The apparatus of claim 23, wherein the activity monitor is capable of monitoring the

2   activity of the virtual machines substantially in parallel with the execution the virtual

3   machines.

1   25. The apparatus of claim 21, wherein the virtual machine monitor is capable of either

2   increasing or decreasing the ability of the virtual machine(s) to access to a physical

3   resource.

1 26: The apparatus of claim 25, wherein the virtual machine monitor is capable of

2 reallocating physical resources to the virtual machine(s) via:

3 increasing the ability of the virtual machine(s) to access to a first physical resource; and

4 decreasing the ability of the virtual machine(s) to access to a second physical resource.

1 27: The apparatus of claim 25, wherein the virtual machine monitor is capable of

2 reallocating physical resources to the virtual machine(s) by selecting from a group

3 including the following:

4   altering the order in which the virtual machine(s) are executed,

5   swapping between virtual machines,

6   assigning core affinity to a virtual machine,

7   assigning a processor affinity to a virtual machine, and

8   altering the time quanta assigned to the virtual machine(s).

1 28: The apparatus of claim 22, wherein the resource manager is further capable of

2 evaluating the monitored activity of the virtual machine(s).

1 29: The apparatus of claim 28, wherein the resource manager is capable of evaluating the

2 monitored activity of the virtual machine by:

3 wherein evaluating the activity of one or more virtual machines includes:

4   determining whether the activity of the virtual machine(s) is sufficient to trigger a

5   change in the resource allocation;

6   suggesting a resource allocation; and

7   determining whether the suggested resource allocation negatively impacts the

8   performance of another virtual machine.

1   30: The apparatus of claim 29, wherein the activity monitor and virtual machine monitor

2   are integrated into the same circuit.

1   31. A system comprising:

2   a plurality of resources, having a processor and a network interface;

3   a plurality of virtual machines, capable of sharing access to the plurality of

4   physical resources;

5   an activity monitor, capable of monitoring the activity of the virtual machines;

6   a virtual machine manager, capable of managing the virtual machines and

7   reallocating access to the physical resources amongst the virtual machines, based at least

8   in part on the monitored activity.

1   32. The system of claim 31, wherein the virtual machine monitor includes a resource

2   manager that is capable of reallocating access to the physical resources amongst the

3   virtual machines.

1   33. The system of claim 31, wherein the activity monitor is capable of monitoring an

2   activity selected from a group including:

3   interrupt usage,

4   processor usage,

5   network usage,

6   disk usage, and

7   whether the virtual machine is performing a time-critical task.

1   34. The system of claim 33, wherein the activity monitor is capable of monitoring the

2   activity of the virtual machines substantially in parallel with the execution the virtual

3   machines.

1   35. The system of claim 31, wherein the virtual machine monitor is capable of either

2   increasing or decreasing the ability of the virtual machine(s) to access to a physical

3   resource.

1   36: The system of claim 35, wherein the virtual machine monitor is capable of

2   reallocating physical resources to the virtual machine(s) via:

3   increasing the ability of the virtual machine(s) to access to a first physical resource; and

4   decreasing the ability of the virtual machine(s) to access to a second physical resource.

1   37: The system of claim 35, wherein the virtual machine monitor is capable of

2   reallocating physical resources to the virtual machine(s) by selecting from a group

3   including the following:

4   altering the order in which the virtual machine(s) are executed,

5   swapping between virtual machines,

6   assigning core affinity to a virtual machine,

7   assigning a processor affinity to a virtual machine, and

8   altering the time quanta assigned to the virtual machine(s).

1   38: The system of claim 32, wherein the resource manager is further capable of

2   evaluating the monitored activity of the virtual machine(s).

1   39: The system of claim 38, wherein the resource manager is capable of evaluating the

2   monitored activity of the virtual machine by:

3   wherein evaluating the activity of one or more virtual machines includes:

4   determining whether the activity of the virtual machine(s) is sufficient to trigger a

5   change in the resource allocation;

6   suggesting a resource allocation; and

7   determining whether the suggested resource allocation negatively impacts the

8   performance of another virtual machine.

1   40: The system of claim 39, wherein the activity monitor and virtual machine monitor

2   are integrated into the same circuit.